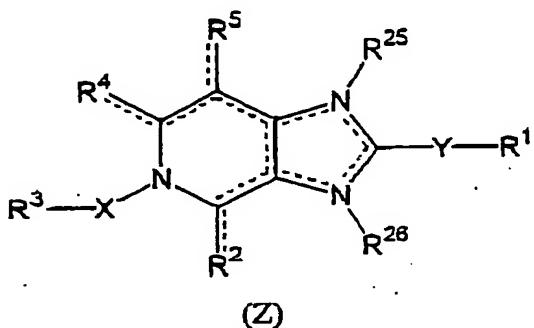


DT12 Rec'd PCT/PTO 30 DEC 2004

amended claims PCT/BE03/00117 : clean copy

CLAIMS

5 1. Use of a imidazo[4,5-c]pyridine derivative of the formula (Z), or pharmaceutically acceptable salts thereof for the preparation of a medicament for the treatment or prevention of viral infections,



10

wherein:

- the dotted lines represent an optional double bond, provided that no two double bonds are adjacent to one another, and that the dotted lines represent at least 3, optionally 4 double bonds;
- 15 - R¹ is selected from hydrogen; aryl unsubstituted or substituted with one or more R⁶, heterocyclic ring unsubstituted or substituted with one or more R⁶, C₃₋₁₀ cycloalkyl unsubstituted or substituted with one or more R⁶ and C₄₋₁₀ cycloalkenyl unsubstituted or substituted with one or more R⁶;
- 20 - Y is selected from the group consisting of a single bond, O; S(O)_m; NR¹¹; and a divalent, saturated or unsaturated, substituted or unsubstituted C<sub>1-C₁₀ hydrocarbon group optionally including one or more heteroatoms in the main chain, said heteroatoms being selected from the groups consisting of O, S, and N; such as C₁₋₆ alkylene, C₂₋₆ alkenylene, C₂₋₆ alkynylene, -O(CH₂)₁₋₅-, -(CH₂)₁₋₄-O-(CH₂)₁₋₄-, -S-(CH₂)₁₋₅-, -(CH₂)₁₋₄-S-(CH₂)₁₋₄-, -NR¹¹-(CH₂)₁₋₅-, -(CH₂)₁₋₄-NR¹¹-(CH₂)₁₋₄-and C₃₋₁₀ cycloalkylidene;
- 25 - each R² and R⁴ is independently selected from the group consisting of hydrogen C₁₋₁₈ alkyl; C₂₋₁₈ alkenyl; C₂₋₁₈ alkynyl; C₁₋₁₈ alkoxy; C₁₋₁₈ alkylthio; halogen; OH; CN; NO₂; NR⁷R⁸; OCF₃; haloalkyl; C(=O)R⁹; C(=S)R⁹; SH; aryl; aryloxy; arylthio; arylalkyl; C₁₋₁₈ hydroxyalkyl; C₃₋₁₀ cycloalkyl; C₃₋₁₀ cycloalkyloxy; C₃₋₁₀ cycloalkylthio; C₃₋₁₀ cycloalkenyl; C₃₋₁₀ cycloalkynyl; 5 or 6 membered heterocyclic, oxyheterocyclic or

1
BEST AVAILABLE COPY

thioheterocyclic ring; or, when one of R²⁵ or R²⁶ is different from hydrogen, either R² or R⁴ is selected from (=O), (=S), and (=NR¹⁷);

- X is selected from the group consisting of a divalent, saturated or unsaturated, substituted or unsubstituted C₁-C₁₀ hydrocarbon group optionally including one or more heteroatoms in the main chain (provided that the heteroatom is not linked to N of the nucleus), said heteroatoms being selected from the group consisting of O, S, and N; such as C₁₋₆ alkylene, (for example -CH₂-, -CH(CH₃)-, -CH₂-CH₂-, -CH₂-CH₂-CH₂-, -CH₂-CH₂-CH₂-CH₂-, -(CH₂)₂₋₄-O-(CH₂)₂₋₄-, -(CH₂)₂₋₄-S-(CH₂)₂₋₄-, -(CH₂)₂₋₄-NR¹⁰-(CH₂)₂₋₄-, C₃₋₁₀ cycloalkylidene, C₂₋₆ alkenylene (such as -CH=CH-CH₂-), C₂₋₆ alkynylene;
- 10 - m is any integer from 0 to 2;
- R³ is selected from the group consisting of aryl; aryloxy; arylthio; aryl-NR¹⁰-, 5 or 6 membered heterocyclic, oxyheterocyclic or thioheterocyclic ring;; and each of said aryl, aryloxy, arylthio, aryl-NR¹⁰-, 5 or 6 membered heterocyclic, oxyheterocyclic or thioheterocyclic ring is optionally substituted with one or more R¹⁷; C₃₋₁₀ cycloalkyl, oxycycloalkyl or thiocycloalkyl; C₄₋₁₀ cycloalkenyl with the proviso that the double bond cannot be adjacent to a nitrogen; H with the proviso that if X is an alkylene, an alkenylene or an alkynylene, then X comprises at least 5 carbon atoms;
- R⁵ is independently selected from the group consisting of hydrogen; C₁₋₁₈ alkyl; C₂₋₁₈ alkenyl; C₂₋₁₈ alkynyl; C₁₋₁₈ alkoxy; C₁₋₁₈ alkylthio; halogen; OH; CN; NO₂; NR⁷R⁸; OCF₃; haloalkyl; C(=O)R⁹; C(=S)R⁹; SH; aryl; aryloxy; arylthio; arylalkyl; C₁₋₁₈ hydroxyalkyl; C₃₋₁₀ cycloalkyl; C₃₋₁₀ cycloalkyloxy; C₃₋₁₀ cycloalkylthio C₃₋₁₀ cycloalkenyl; C₃₋₁₀ cycloalkynyl; 5 or 6 membered heterocyclic, oxyheterocyclic or thioheterocyclic ring;
- each R⁶ and R¹⁷ is independently selected from the group consisting of hydrogen; C₁₋₁₈ alkyl; C₂₋₁₈ alkenyl; C₂₋₁₈ alkynyl; C₁₋₁₈ alkoxy; C₁₋₁₈ alkylthio; C₃₋₁₀ cycloalkyl, C₃₋₁₀ cycloalkenyl or C₃₋₁₀ cycloalkynyl; halogen; OH; CN; NO₂; NR⁷R⁸; OCF₃; haloalkyl; C(=O)R¹⁸; C(=S)R¹⁸; SH; aryl; aryloxy; arylthio; arylalkyl; arylalkyloxy (optionally a oxybenzyl); arylalkylthio (optionally a benzylthio); 5 or 6 membered heterocyclic, oxyheterocyclic or thioheterocyclic ring; C₁₋₁₈ hydroxyalkyl; and each of said aryl, aryloxy, arylthio, arylalkyl, arylalkyloxy (optionally a oxybenzyl), arylalkylthio (optionally a benzylthio), 5 or 6 membered heterocyclic, oxyheterocyclic or thioheterocyclic ring, C₁₋₁₈ hydroxyalkyl is optionally substituted with 1 or more R¹⁹;
- each R⁷ and R⁸ is independently selected from the group consisting of H; C₁₋₁₈ alkyl; C₁₋₁₈ alkenyl; aryl; C₃₋₁₀ cycloalkyl; C₄₋₁₀ cycloalkenyl; 5-6 membered heterocyclic ring;

C(=O)R¹²; C(=S) R¹²; an amino acid residue linked through a carboxyl group thereof; alternatively, R⁷ and R⁸, together with the nitrogen to which they are attached, combine to form a 5-6 membered heterocyclic ring;

- each R⁹ and R¹³ is independently selected from the group consisting of H; OH; C₁₋₁₈ alkyl; C₂₋₁₈ alkenyl; C₃₋₁₀ cycloalkyl; C₄₋₁₀ cycloalkenyl; C₁₋₁₈ alkoxy; NR¹⁵R¹⁶; aryl an amino acid residue linked through an amino group thereof;

- each R¹⁰ and R¹¹ is independently selected from the group the group consisting of H; C₁₋₁₈ alkyl; C₁₋₁₈ alkenyl; C₃₋₁₀ cycloalkyl; C₄₋₁₀ cycloalkenyl; aryl; C(=O)R¹²; 5-6 membered heterocyclin ring; an amino acid residue linked through a carboxyl group thereof;

10 - R¹² is independently selected from the group consisting of H; C₁₋₁₈ alkyl; C₂₋₁₈ alkenyl; aryl; C₃₋₁₀ cycloalkyl; C₄₋₁₀ cycloalkenyl; an amino acid residue linked through an amino group thereof;

- each R¹³ and R¹⁴ is independently selected from the group consisting of H; C₁₋₁₈ alkyl; C₂₋₁₈ alkenyl; aryl; C₃₋₁₀ cycloalkyl; C₄₋₁₀ cycloalkenyl; C(=O)R¹²; C(=S)R¹²; an amino acid residue linked through a carboxyl group thereof;

- each R¹⁵ and R¹⁶ is independently selected from the group consisting of H; C₁₋₁₈ alkyl; C₂₋₁₈ alkenyl; C₂₋₁₈ alkynyl; aryl; C₃₋₁₀ cycloalkyl; C₄₋₁₀ cycloalkenyl; an amino acid residue linked through a carboxyl group thereof.

20 - R¹⁹ is independently selected from the group consisting of H; C₁₋₁₈ alkyl, preferably C₁₋₆ alkyl; C₂₋₁₈ alkenyl; C₂₋₁₈ alkynyl; C₁₋₁₈ alkoxy, preferably C₁₋₆ alkoxy; C₁₋₁₈ alkylthio; C₃₋₁₀ cycloalkyl; C₄₋₁₀ cycloalkenyl; C₄₋₁₀ cycloalkynyl; halogen; OH; CN; NO₂; NR²⁰R²¹; OCF₃; haloalkyl; C(=O)R²²; C(=S)R²²; SH; C(=O)N(C₁₋₆ alkyl), N(H)S(O)(O)(C₁₋₆ alkyl); aryl; aryloxy; arylthio; arylalkyl; and each of said aryl, aryloxy, arylthio, arylalkyl substituted with 1 or more halogens, particularly a phenyl substituted with 1-2 halogens; hydroxyalkyl; 5 or 6 membered heterocyclic, oxyheterocyclic or thioheterocyclic ring each unsubstituted or substituted with 1 or more halogens;

25 - each R²⁰ and R²¹ is independently selected from the group consisting of H; C₁₋₁₈ alkyl, preferably C₁₋₆ alkyl; C₂₋₁₈ alkenyl; C₂₋₁₈ alkynyl; aryl; C₃₋₁₀ cycloalkyl; C₄₋₁₀ cycloalkenyl; C(=O)R¹², C(=S)R¹²;

30 - R²² is independently selected from H; OH; C₁₋₁₈ alkyl; C₂₋₁₈ alkenyl; C₁₋₁₈ alkoxy; NR²³R²⁴; aryl; C₃₋₁₀ cycloalkyl, ; C₄₋₁₀ cycloalkenyl;

- each R²³ and R²⁴ is independently selected from the group the group consisting of H; C₁₋₁₈ alkyl, preferably C₂₋₃ alkyl, wherein C₂₋₃ alkyl taken together with N of R²² can form a saturated heterocycle, which heterocycle is optionally substituted with OH or aryl or an

amino acid residue;

each R²⁵ or R²⁶, are absent or selected from the group consisting of H, C₁₋₁₈ alkyl, preferably C₁₋₄ alkyl; C₃₋₁₀ cycloalkyl, such as C₅₋₁₀ bicycloalkyl; C₃₋₁₀ cycloalkenyl; (C₃₋₈ cycloalkyl)-C₁₋₃ alkyl; aryl, such as phenyl; 5 or 6 membered heterocyclic ring, such as pyridyl; alkylaryl, such as benzyl; and each of said C₁₋₁₈ alkyl, preferably C₁₋₄ alkyl, C₃₋₁₀ cycloalkyl, C₃₋₁₀ cycloalkenyl, (C₃₋₈ cycloalkyl)-C₁₋₃ alkyl, C₅₋₁₀ bicycloalkyl, adamantyl, phenyl, pyridyl and benzyl is optionally substituted with 1-4 of each of C₁₋₆ alkyl, C₁₋₆ alkoxy, halo, CH₂OH, oxybenzyl, and OH; and heterocyclic ring having 3 to 7 carbon atoms, preferably a saturated heterocyclic ring wherein the heteroatoms are S, S(O), or S(O)₂ separated from the imidazopyridyl ring nitrogen atom by at least 2 heterocyclic ring carbon atoms. Provided that either R²⁵ or R²⁶ is hydrogen. Typically R²⁵ or R²⁶ is cyclopentyl or cyclohexyl; provided that if the compound is substituted at R²⁵ or R²⁶, either R² or R⁴ is selected from (=O), (=S), and (=NR²⁷); and

R²⁷ is selected from the group consisting of H, C₁₋₁₈ alkyl, C₃₋₁₀ cycloalkyl, (C₃₋₁₀ cycloalkyl)-C₁₋₆ alkyl; aryl; arylalkyl, such as benzyl.

2. The use according to claim 1, wherein said viral infection is an infection of a virus belonging to the family of Flaviviridae.

20 3. The use according to claim 1, wherein said viral infection is an infection of a hepatitis-C virus.

4. The use according to claim 1, wherein said viral infection is an infection of a virus belonging to the family of the Picornaviridae.

25 5. The use according to claim 1, wherein said viral infection is an infection of a Coxsackie virus.

6. The use of claim 1, wherein said compound is selected from the group consisting of:

30 5-[(4-Bromophenyl)methyl]-2-(2-fluorophenyl)-5H-imidazo[4,5-c]pyridine

5-[(4-Bromophenyl)methyl]-2-(2-pyridinyl)-5H-imidazo[4,5-c]pyridine

5-[(4-Bromophenyl)methyl]-2-(1-naphthalenyl)-5H-imidazo[4,5-c]pyridine

5-[(4-Bromophenyl)methyl]-2-[(phenylthio)methyl]-5H-imidazo[4,5-c]pyridine

5-[(4-Bromophenyl)methyl]-2-[3-(trifluoromethyl)phenyl]-5H-imidazo[4,5-c]pyridine

5-([1,1'-Biphenyl]-4-ylmethyl)-2-(2-fluorophenyl)-5*H*-imidazo[4,5-c]pyridine

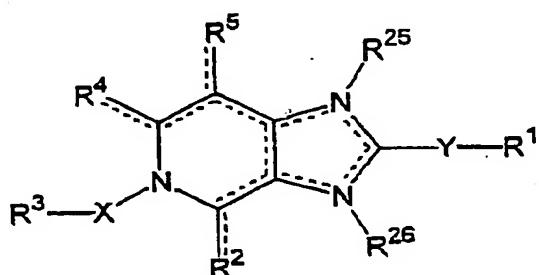
5-[(4-Chlorophenyl)methyl]-2-(2-fluorophenyl)-5*H*-imidazo[4,5-c]pyridine

2-(2-Fluorophenyl)-5-[(4-iodophenyl)methyl]-5*H*-imidazo[4,5-c]pyridine

5-[[4-(1,1-Dimethylethyl)phenyl]methyl]-2-(2-fluorophenyl)-5*H*-imidazo[4,5-c]pyridine

5

7. An imidazo[4,5-c]pyridine compound according to formula A:



(A)

10

- or an enantiomer or a solvate, or a pharmaceutically acceptable salt thereof, wherein: the dotted lines represent an optional double bond, provided that no two double bonds are adjacent to one another, and that the dotted lines represent at least 3, optionally 4 double bonds;

15

- R^1 is selected from hydrogen; aryl unsubstituted or substituted with one or more R^6 , heterocyclic ring unsubstituted or substituted with one or more R^6 , C_{3-10} cycloalkyl unsubstituted or substituted with one or more R^6 and C_{4-10} cycloalkenyl unsubstituted or substituted with one or more R^6

20

- Y is selected from the group consisting of a single bond, O; $S(O)_m$; NR^{11} ; and a divalent, saturated or unsaturated, substituted or unsubstituted $C_{1-C_{10}}$ hydrocarbon group optionally including one or more heteroatoms in the main chain, said heteroatoms being selected from the groups consisting of O, S, and N; such as C_{1-6} alkylene, C_{2-6} alkenylene, C_{2-6} alkynylene, $-O(CH_2)_{1-5}-$, $-(CH_2)_{1-4}-O-(CH_2)_{1-4}-$, $-S-(CH_2)_{1-5}-$, $-(CH_2)_{1-4}-S-(CH_2)_{1-4}-$, $-NR^{11}-(CH_2)_{1-5}-$, $-(CH_2)_{1-4}-NR^{11}-(CH_2)_{1-4}-$ and C_{3-10} cycloalkylidene;

25

- each R^2 and R^4 is independently selected from the group consisting of hydrogen C_{1-18} alkyl; C_{2-18} alkenyl; C_{2-18} alkynyl; C_{1-18} alkoxy; C_{1-18} alkylthio; halogen; OH; CN; NO_2 ; NR^7R^8 ; OCF_3 ; haloalkyl; $C(=O)R^9$; $C(=S)R^9$; SH; aryl; aryloxy; arylthio; arylalkyl; C_{1-18} hydroxyalkyl; C_{3-10} cycloalkyl; C_{3-10} cycloalkyloxy; C_{3-10} cycloalkylthio; C_{3-10} cycloalkenyl; C_{3-10} cycloalkynyl; 5 or 6 membered heterocyclic, oxyheterocyclic or

thioheterocyclic ring; or, when one of R²⁵ or R²⁶ is different from hydrogen, either R² or R⁴ is selected from (=O), (=S), and (=NR²⁷);

- X is selected from the group consisting of a divalent, saturated or unsaturated, substituted or unsubstituted C₁-C₁₀ hydrocarbon group optionally including one or more heteroatoms in the main chain (provided that the heteroatom is not linked to N of the nucleus), said heteroatoms being selected from the group consisting of O, S, and N; such as C₁₋₆ alkylene, (for example -CH₂-, -CH(CH₃)-, -CH₂-CH₂-, -CH₂-CH₂-CH₂-, -CH₂-CH₂-CH₂-CH₂), -(CH₂)₂₋₄-O-(CH₂)₂₋₄-, -(CH₂)₂₋₄-S-(CH₂)₂₋₄-, -(CH₂)₂₋₄-NR¹⁰-(CH₂)₂₋₄-, C₃₋₁₀ cycloalkylidene, C₂₋₆ alkenylene (such as -CH=CH-CH₂-), C₂₋₆ alkynylene;

m is any integer from 0 to 2;

- R³ is selected from the group consisting of aryl; aryloxy; arylthio; aryl-NR¹⁰-; 5 or 6 membered heterocyclic, oxyheterocyclic or thioheterocyclic ring;; and each of said aryl, aryloxy, arylthio, aryl-NR¹⁰-, 5 or 6 membered heterocyclic, oxyheterocyclic or thioheterocyclic ring is optionally substituted with one or more R¹⁷; C₃₋₁₀ cycloalkyl, oxycycloalkyl or thiocycloalkyl; C₄₋₁₀ cycloalkenyl with the proviso that the double bond cannot be adjacent to a nitrogen; H with the proviso that if X is an alkylene, an alkenylene or an alkynylene, then X comprises at least 5 carbon atoms;

- R⁵ is independently selected from the group consisting of hydrogen; C₁₋₁₈ alkyl; C₂₋₁₈ alkenyl; C₂₋₁₈ alkynyl; C₁₋₁₈ alkoxy; C₁₋₁₈ alkylthio; halogen; OH; CN; NO₂; NR⁷R⁸; OCF₃; haloalkyl; C(=O)R⁹; C(=S)R⁹; SH; aryl; aryloxy; arylthio; arylalkyl; C₁₋₁₈ hydroxyalkyl; C₃₋₁₀ cycloalkyl; C₃₋₁₀ cycloalkyloxy; C₃₋₁₀ cycloalkylthio C₃₋₁₀ cycloalkenyl; C₃₋₁₀ cycloalkynyl; 5 or 6 membered heterocyclic, oxyheterocyclic or thioheterocyclic ring;

- each R⁶ and R¹⁷ is independently selected from the group consisting of hydrogen; C₁₋₁₈ alkyl; C₂₋₁₈ alkenyl; C₂₋₁₈ alkynyl; C₁₋₁₈ alkoxy; C₁₋₁₈ alkylthio; C₃₋₁₀ cycloalkyl, C₃₋₁₀ cycloalkenyl or C₃₋₁₀ cycloalkynyl; halogen; OH; CN; NO₂; NR⁷R⁸; OCF₃; haloalkyl; C(=O)R¹⁸; C(=S)R¹⁸; SH; aryl; aryloxy; arylthio; arylalkyl; arylalkyloxy (optionally a oxybenzyl); arylalkylthio (optionally a benzylthio); 5 or 6 membered heterocyclic, oxyheterocyclic or thioheterocyclic ring; C₁₋₁₈ hydroxyalkyl; and each of said aryl, aryloxy, arylthio, arylalkyl, arylalkyloxy (optionally a oxybenzyl), arylalkylthio (optionally a benzylthio), 5 or 6 membered heterocyclic, oxyheterocyclic or thioheterocyclic ring, C₁₋₁₈ hydroxyalkyl is optionally substituted with 1 or more R¹⁹;

- each R⁷ and R⁸ is independently selected from the group consisting of H; C₁₋₁₈ alkyl; C₁₋₁₈ alkenyl; aryl; C₃₋₁₀ cycloalkyl; C₄₋₁₀ cycloalkenyl; 5-6 membered heterocyclic ring; C(=O)R¹²; C(=S)R¹²; an amino acid residue linked through a carboxyl group thereof, alternatively, R⁷ and R⁸, together with the nitrogen to which they are attached, combine to form a 5-6 membered heterocyclic ring;

5 - each R⁹ and R¹⁸ is independently selected from the group consisting of H; OH; C₁₋₁₈ alkyl; C₂₋₁₈ alkenyl; C₃₋₁₀ cycloalkyl; C₄₋₁₀ cycloalkenyl; C₁₋₁₈ alkoxy; NR¹⁵R¹⁶; aryl an amino acid residue linked through an amino group thereof;

10 - each R¹⁰ and R¹¹ is independently selected from the group the group consisting of H; C₁₋₁₈ alkyl; C₁₋₁₈ alkenyl; C₃₋₁₀ cycloalkyl; C₄₋₁₀ cycloalkenyl; aryl; C(=O)R¹²; 5-6 membered heterocyclic ring; an amino acid residue linked through a carboxyl group thereof;

15 - R¹² is independently selected from the group consisting of H; C₁₋₁₈ alkyl; C₂₋₁₈ alkenyl; aryl; C₃₋₁₀ cycloalkyl; C₄₋₁₀ cycloalkenyl; an amino acid residue linked through an amino group thereof;

20 - each R¹³ and R¹⁴ is independently selected from the group consisting of H; C₁₋₁₈ alkyl; C₂₋₁₈ alkenyl; aryl; C₃₋₁₀ cycloalkyl; C₄₋₁₀ cycloalkenyl; C(=O)R¹²; C(=S)R¹²; an amino acid residue linked through a carboxyl group thereof;

25 each R¹⁵ and R¹⁶ is independently selected from the group consisting of H; C₁₋₁₈ alkyl; C₂₋₁₈ alkenyl; C₂₋₁₈ alkynyl; aryl; C₃₋₁₀ cycloalkyl; C₄₋₁₀ cycloalkenyl; an amino acid residue linked through a carboxyl group thereof.

30 - R¹⁹ is independently selected from the group consisting of H; C₁₋₁₈ alkyl, preferably C₁₋₆ alkyl; C₂₋₁₈ alkenyl; C₂₋₁₈ alkynyl; C₁₋₁₈ alkoxy, preferably C₁₋₆ alkoxy; C₁₋₁₈ alkylthio; C₃₋₁₀ cycloalkyl; C₄₋₁₀ cycloalkenyl; C₄₋₁₀ cycloalkynyl; halogen; OH; CN; NO₂; NR²⁰R²¹; OCF₃; haloalkyl; C(=O)R²²; C(=S)R²²; SH; C(=O)N(C₁₋₆ alkyl), N(H)S(O)(O)(C₁₋₆ alkyl); aryl; aryloxy; arylthio; arylalkyl; and each of said aryl, aryloxy, arylthio, arylalkyl substituted with 1 or more halogens, particularly a phenyl substituted with 1-2 halogens; hydroxyalkyl; 5 or 6 membered heterocyclic, oxyheterocyclic or thioheterocyclic ring each unsubstituted or substituted with 1 or more halogens;

35 -each R²⁰ and R²¹ is independently selected from the group consisting of H; C₁₋₁₈ alkyl, preferably C₁₋₆ alkyl; C₂₋₁₈ alkenyl; C₂₋₁₈ alkynyl; aryl; C₃₋₁₀ cycloalkyl; C₄₋₁₀ cycloalkenyl; C(=O)R¹²; C(=S)R¹²,

40 R²² is independently selected from H; OH; C₁₋₁₈ alkyl; C₂₋₁₈ alkenyl; C₁₋₁₈ alkoxy;

NR²³R²⁴; aryl; C₃₋₁₀ cycloalkyl; C₄₋₁₀ cycloalkenyl;

-each R²³ and R²⁴ is independently selected from the group the group consisting of H; C₁₋₁₈ alkyl, preferably C₂₋₃ alkyl, wherein C₂₋₃ alkyl taken together with N of R²² can form a saturated heterocycle, which heterocycle is optionally substituted with OH or 5 aryl or an amino acid residue;

each R²⁵ or R²⁶, are absent or selected from the group consisting of of H, C₁₋₁₈ alkyl, preferably C₁₋₄ alkyl; C₃₋₁₀ cycloalkyl, such as C₅₋₁₀ bicycloalkyl; C₃₋₁₀ cycloalkenyl; (C₃₋₈ cycloalkyl)-C₁₋₃ alkyl;; aryl, such as phenyl; 5 or 6 membered heterocyclic ring, such as pyridyl; alkylaryl, such as benzyl; and each of said C₁₋₁₈ alkyl, preferably C₁₋₄ alkyl,

10 C₃₋₁₀ cycloalkyl, C₃₋₁₀ cycloalkenyl, (C₃₋₈ cycloalkyl)-C₁₋₃ alkyl, C₅₋₁₀ bicycloalkyl, adamantlyl, phenyl, pyridyl and benzyl is optionally substituted with 1-4 of each of C₁₋₆ alkyl, C₁₋₆ alkoxy, halo, CH₂OH, oxybenzyl, and OH; and heterocyclic ring having 3 to 15 7 carbon atoms, preferably a saturated heterocyclic ring wherein the heteroatoms are S, S(O), or S(O)₂ separated from the imidazopyridyl ring nitrogen atom by at least 2 heterocyclic ring carbon atoms. Provided that either R²⁵ or R²⁶ is hydrogen. Typically R²⁵ or R²⁶ is cyclopentyl or cyclohexyl; provided that if the compound comprises R²⁵ or R²⁶, either R² or R⁴ is selected from (=O), (=S), and (=NR²⁷); and

R²⁷ is selected from the group consisting of H, C₁₋₁₈ alkyl, C₃₋₁₀ cycloalkyl, (C₃₋₁₀ cycloalkyl)-C₁₋₆ alkyl; aryl; arylalkyl, such as benzyl;

20 with the proviso that:

-the substituents X, Y, R¹, R², R³, R⁴, R⁵ are not a cephalosporin or wherein the substituents X, Y, R¹, R², R³, R⁴, R⁵ are not an azabicyclo group, more particularly not 5-thia-1-aza-bicyclo[4.2.0]oct-2-en-8-one;

25 -the compound is not 5-(2-piperidin-1-yl-ethyl)-2-(4-hydroxyphenyl)-1H-imidazo[4,5c] pyridin-5-iium bromide;

-the compound is not 4-[5-(2-{4-[Bis-(4-fluorophenyl)-methyl]-piperazin-1-yl}-ethyl)-5H-imidazo[4,5-c]pyridin-2-yl]phenol;

-the compound is not 4-[5-{4-[Bis-(4-fluorophenyl)-methyl]-piperazin-1-yl}-propyl)-5H-imidazo[4,5-c]pyridin-2-yl]phenol;

30 -the compound is not 2,6-bis(1,1,-dimethylethyl)-4-[[2-(5H-imidazo-[4,5-c]pyridin-5-yl)ethyl]thio]-phenol hydrate and/or 2,6-bis(1,1,-dimethylethyl)-4-[[2-(5H-imidazo-[4,5-c]pyridin-5-yl)propyl]thio]-phenol hydrate

-- -the compound is not a compound wherein XR³ has the structure -(CH₂)_n-Y'-CO-N(R₁')(R₂')wherein R₁' and R₂' are each independently selected from hydrogen; straight

or branched chain alkyl of 1 to 15 carbon atoms; cycloalkyl having 3 to 8 carbon atoms; substituted cycloalkyl which can be substituted one or more by alkyl of 1 to 6 carbon atoms; bicycloalkyl having 3 to 8 carbon atoms in each ring; heterocyclicalkyl having 4 to 8 carbon atoms which can be optionally substituted by alkyl of 1 to 6 carbon atoms; heteroaromatic having 5 or 6 carbon atoms which can be optionally substituted by alkyl having 1 to 6 carbon atoms; phenyl; substituted phenyl which can be substituted one or more by a group independently selected from alkyl having 1 to 6 carbon atoms or halogen; straight or branched alkenyl having 3 to 15 carbon atoms with the proviso that the double bond of the alkenyl group cannot be adjacent to the nitrogen; cycloalkenyl having 5 to 8 carbon atoms with the proviso that the double bond cannot be adjacent to the nitrogen; and R₁' and R₂' cannot both be hydrogen; Y' is phenyl or phenyl substituted once or more than at one or more of the 2, 3, 5 or 6 positions of the phenyl ring by substituents independently selected from the group consisting of alkoxy having 1 to 6 carbon atoms; halogen wherein the halogen is selected from bromo, fluoro, or chloro; straight or branched chain alkyl having 1 to 6 carbon atoms; substituted straight or branched chain alkyl which can be substituted one or more by halogen; thioalkyl wherein the alkyl has 1 to 6 carbon atoms; alkoxyalkyl wherein the alkyl groups are each 1 to 6 carbon atoms; hydroxyalkyl wherein the alkyl has 1 to 6 carbon atoms; alkylthioalkyl wherein the alkyl groups are each 1 to 6 carbon atoms; cyano; mercaptoalkyl wherein the alkyl has 1 to 6 carbon atoms; hydroxy; amino; alkylamino wherein the alkyl group has 1 to 6 carbon atoms; and dialkylamino wherein the alkyl groups are each 1 to 6 carbon atoms; n is an integer of 1 to 5

-the compound is not 5-[2-(Biphenyl-4-yloxy)-ethyl]-5H-imidazo[4,5-c]pyridine;

-the compound is not 5-[2-(4-Phenoxy-phenoxy)-ethyl]-5H-imidazo[4,5-c]pyridine;

-the compound is not [5-(4-Fluorobenzyl)-5H-imidazo[4,5-c]pyridin-2-yl]-methylamine;

-the compound is not 2,6-bis(1,1-dimethylethyl)-4-[[3-(5H-imidazo-[4,5-c]pyridin-5-yl)propyl]thio]-phenol hydrate;

-the compound is not 5-[2-(4-Phenylmethyloxy-phenoxy)-ethyl]-5H-imidazo[4,5-c]pyridine;

-the compound is not 5-[3-(4-Phenoxy-phenoxy)-propyl]-5H-imidazo[4,5-c]pyridine

-the compound is not 5-{2-[4-(4-Fluorophenoxy)-phenoxy]-ethyl}-5H-imidazo[4,5-c]pyridine;

-the compound is not 5-[3-(4-Phenylmethyl-phenoxy)-propyl]-5H-imidazo[4,5-

10

c]pyridine;

the compound is not ((5-[4-(Fluorophenyl)methyl]-5-H-imidazo[4,5-c]-pyridine-2-yl)methyl)-carbamaat, methyl ester;

the compound is not 5-(4-Chlorophenylmethyl)-2-(piperidin-1-ylmethyl)-5H-imidazo[4,5-c]pyridine and its dihydrochloride salt;

the compound is not 5-(4-Chlorophenylmethyl)-2-(4-methyl-piperazin-1-ylmethyl)-5H-imidazo[4,5-c]pyridine;

the compound is not 5-[5-(5-azabenzimidazolyl)methyl]-1-(4-cyanobenzyl)imidazole;

the compound is not 5-(5-benzyl-2,3-dihydro-benzofuran-2-ylmethyl)-5H-imidazo[4,5-c]pyridine;

the compound is not 5-[2-[4-(phenylmethyl) phenoxy]ethyl]-5H-imidazo[4,5-c]-pyridine hydrate;

the compound is not 5-[2-[4-(phenylmethoxy) phenoxy]ethyl]-5H-imidazo[4,5-c]-pyridine;

the compound is not 5-[2-[4-(phenoxyphenoxy)ethyl]-5H-imidazo[4,5-c]-pyridine;

the compound is not 5-[3-[4-(phenoxyphenoxy)propyl]-5H-imidazo[4,5-c]-pyridine;

the compound is not 5-[2-[4-(4-fluorophenoxy)phenoxy]ethyl]-5H-imidazo[4,5-c]-pyridine;

the compound is not 5-[3-[4(phenylmethyl)phenoxy]propyl]-5H-imidazo[4,5-c]-pyridine;

the compound is not 2,6-bis(1,1,-dimethylethyl)-4-[[3-(5H-imidazo-[4,5-c]pyridin-5-yl)propyl]thio]-phenol hydrate;

the compound is not 2,6-bis(1,1,-dimethylethyl)-4-[[2-(5H-imidazo-[4,5-c]pyridin-5-yl)ethyl]thio]-phenol hydrate;

the compound is not 2,6-bis(1,1,-dimethylethyl)-4-[[4-(5H-imidazo-[4,5-c]pyridin-5-yl)buthyl]thio]-phenol hydrate;

the compound is not (\pm) 2,6-bis(1,1,-dimethylethyl)-4-[[2-hydroxy-3]-(5h-imidazo-[4,5-c]pyridin-5-yl)buthyl]thio]-phenol hydrate;

30 8. The compound according to claim 7, wherein:

R^1 is selected from hydrogen; aryl unsubstituted or substituted with one or more R^6 , heterocyclic ring unsubstituted or substituted with one or more R^6 , C_{3-10} cycloalkyl unsubstituted or substituted with one or more R^6 and C_{4-10} cycloalkenyl unsubstituted or substituted with one or more R^6 ;

10

Y is selected from the group consisting of a single bond, O; S(O)_m; NR¹¹; and a divalent, saturated or unsaturated, substituted or unsubstituted C₁-C₁₀ hydrocarbon group optionally including one or more heteroatoms in the main chain, said heteroatoms being selected from the groups consisting of O, S, and N; such as C₁₋₆ alkylene, C₂₋₆ alkenylene, C₂₋₆ alkynylene, -O(CH₂)₁₋₅-, -(CH₂)₁₋₄-O-(CH₂)₁₋₄-, -S-(CH₂)₁₋₅-, -(CH₂)₁₋₄-S-(CH₂)₁₋₄-, -NR¹¹-(CH₂)₁₋₅-, -(CH₂)₁₋₄-NR¹¹-(CH₂)₁₋₄-and C₃₋₁₀ cycloalkylidene;

each R² and R⁴ is independently selected from the group consisting of hydrogen C₁₋₁₈ alkyl; C₂₋₁₈ alkenyl; C₂₋₁₈ alkynyl; C₁₋₁₈ alkoxy; C₁₋₁₈ alkylthio; halogen; OH; CN; NO₂; NR⁷R⁸; OCF₃; haloalkyl; C(=O)R⁹; C(=S)R⁹; SH; aryl; aryloxy; arylthio; arylalkyl; C₁₋₁₈ hydroxyalkyl; C₃₋₁₀ cycloalkyl; C₃₋₁₀ cycloalkyloxy; C₃₋₁₀ cycloalkylthio; C₃₋₁₀ cycloalkenyl; C₃₋₁₀ cycloalkynyl; 5 or 6 membered heterocyclic, oxyheterocyclic or thioheterocyclic ring;

X is selected from the group consisting of a divalent, saturated or unsaturated, substituted or unsubstituted C₁-C₁₀ hydrocarbon group optionally including one or more heteroatoms in the main chain (provided that the heteroatom is not linked to N of the nucleus), said heteroatoms being selected from the group consisting of O, S, and N; such as C₁₋₆ alkylene, (for example -CH₂-, -CH(CH₃)-, -CH₂-CH₂-, -CH₂-CH₂-CH₂-, -CH₂-CH₂-CH₂-CH₂-, -(CH₂)₂₋₄-O-(CH₂)₂₋₄-, -(CH₂)₂₋₄-S-(CH₂)₂₋₄-, -(CH₂)₂₋₄-NR¹⁰-(CH₂)₂₋₄-, C₃₋₁₀ cycloalkylidene, C₂₋₆ alkenylene (such as -CH=CH-CH₂), C₂₋₆ alkynylene;

20 -m is any integer from 0 to 2;

R³ is selected from the group consisting of aryl; aryloxy; arylthio; aryl-NR¹⁰-, 5 or 6 membered heterocyclic, oxyheterocyclic or thioheterocyclic ring;; and each of said aryl, aryloxy, arylthio, aryl-NR¹⁰-, 5 or 6 membered heterocyclic, oxyheterocyclic or thioheterocyclic ring is optionally substituted with one or more R¹⁷; C₃₋₁₀ cycloalkyl, oxycycloalkyl or thiocycloalkyl; C₄₋₁₀ cycloalkenyl with the proviso that the double bond cannot be adjacent to a nitrogen; H with the proviso that if X is an alkylene, an alkenylene or an alkynylene, then X comprises at least 5 carbon atoms;

R⁵ is independently selected from the group consisting of hydrogen; C₁₋₁₈ alkyl; C₂₋₁₈ alkenyl; C₂₋₁₈ alkynyl; C₁₋₁₈ alkoxy; C₁₋₁₈ alkylthio; halogen; OH; CN; NO₂; NR⁷R⁸; OCF₃; haloalkyl; C(=O)R⁹; C(=S)R⁹; SH; aryl; aryloxy; arylthio; arylalkyl; C₁₋₁₈ hydroxyalkyl; C₃₋₁₀ cycloalkyl; C₃₋₁₀ cycloalkyloxy; C₃₋₁₀ cycloalkylthio C₃₋₁₀ cycloalkenyl; C₃₋₁₀ cycloalkynyl; 5 or 6 membered heterocyclic, oxyheterocyclic or thioheterocyclic ring;

each R⁶ and R¹⁷ is independently selected from the group consisting of hydrogen; C₁₋₁₈ alkyl; C₂₋₁₈ alkenyl; C₂₋₁₈ alkynyl; C₁₋₁₈ alkoxy; C₁₋₁₈ alkylthio; C₃₋₁₀ cycloalkyl, C₃₋₁₀

cycloalkenyl or C₃₋₁₀ cycloalkynyl; halogen; OH; CN; NO₂; NR⁷R⁸; OCF₃; haloalkyl; C(=O)R⁹; C(=S)R⁹; SH; aryl; aryloxy; arylthio; arylalkyl; arylalkyloxy (optionally a oxybenzyl); arylalkylthio (optionally a benzylthio); 5 or 6 membered heterocyclic, oxyheterocyclic or thioheterocyclic ring; C₁₋₁₈ hydroxyalkyl; and each of said aryl, aryloxy, arylthio, arylalkyl, arylalkyloxy (optionally a oxybenzyl), arylalkylthio (optionally a benzylthio), 5 or 6 membered heterocyclic, oxyheterocyclic or thioheterocyclic ring, C₁₋₁₈ hydroxyalkyl is optionally substituted with 1 or more R¹⁹;

each R⁷ and R⁸ is independently selected from the group consisting of H; C₁₋₁₈ alkyl; C₁₋₁₈ alkenyl; aryl; C₃₋₁₀ cycloalkyl; C₄₋₁₀ cycloalkenyl; 5-6 membered heterocyclic ring; C(=O)R¹²; C(=S)R¹²; an amino acid residue linked through a carboxyl group thereof; alternatively, R⁷ and R⁸, together with the nitrogen to which they are attached, combine to form a 5-6 membered heterocyclic ring;

each R⁹ and R¹⁸ is independently selected from the group consisting of H; OH; C₁₋₁₈ alkyl; C₂₋₁₈ alkenyl; C₃₋₁₀ cycloalkyl; C₄₋₁₀ cycloalkenyl; C₁₋₁₈ alkoxy; NR¹⁵R¹⁶; aryl an amino acid residue linked through an amino group thereof;

each R¹⁰ and R¹¹ is independently selected from the group the group consisting of H; C₁₋₁₈ alkyl; C₁₋₁₈ alkenyl; C₃₋₁₀ cycloalkyl; C₄₋₁₀ cycloalkenyl; aryl; C(=O)R¹²; 5-6 membered heterocyclin ring; an amino acid residue linked through a carboxyl group thereof;

R¹² is independently selected from the group consisting of H; C₁₋₁₈ alkyl; C₂₋₁₈ alkenyl; aryl; C₃₋₁₀ cycloalkyl; C₄₋₁₀ cycloalkenyl; an amino acid residue linked through an amino group thereof;

each R¹³ and R¹⁴ is independently selected from the group consisting of H; C₁₋₁₈ alkyl; C₂₋₁₈ alkenyl; aryl; C₃₋₁₀ cycloalkyl; C₄₋₁₀ cycloalkenyl; C(=O)R¹²; C(=S)R¹²; an amino acid residue linked through a carboxyl group thereof;

each R¹⁵ and R¹⁶ is independently selected from the group consisting of H; C₁₋₁₈ alkyl; C₂₋₁₈ alkenyl; C₂₋₁₈ alkynyl; aryl; C₃₋₁₀ cycloalkyl; C₄₋₁₀ cycloalkenyl; an amino acid residue linked through a carboxyl group thereof;

R¹⁹ is independently selected from the group consisting of H; C₁₋₁₈ alkyl, preferably C₁₋₆ alkyl; C₂₋₁₈ alkenyl; C₂₋₁₈ alkynyl; C₁₋₁₈ alkoxy, preferably C₁₋₆ alkoxy; C₁₋₁₈ alkylthio; C₃₋₁₀ cycloalkyl; C₄₋₁₀ cycloalkenyl; C₄₋₁₀ cycloalkynyl; halogen; OH; CN; NO₂; NR²⁰R²¹; OCF₃; haloalkyl; C(=O)R²²; C(=S)R²²; SH; C(=O)N(C₁₋₆ alkyl), N(H)S(O)(O)(C₁₋₆ alkyl); aryl; aryloxy; arylthio; arylalkyl; and each of said aryl, aryloxy, arylthio, arylalkyl substituted with 1 or more halogens, particularly a phenyl substituted with 1-2 halogens; hydroxyalkyl; 5 or 6 membered heterocyclic, oxyheterocyclic or thioheterocyclic ring each

13

unsubstituted or substituted with 1 or more halogens;

each R²⁰ and R²¹ is independently selected from the group consisting of H; C₁₋₁₈ alkyl, preferably C₁₋₆ alkyl; C₂₋₁₈ alkenyl; C₂₋₁₈ alkynyl; aryl; C₃₋₁₀ cycloalkyl; C₄₋₁₀ cycloalkenyl; C(=O)R¹², C(=S)R¹²;

5 R²² is independently selected from H; OH; C₁₋₁₈ alkyl; C₂₋₁₈ alkenyl; C₁₋₁₈ alkoxy; NR²³R²⁴; aryl; C₃₋₁₀ cycloalkyl, ; C₄₋₁₀ cycloalkenyl;

each R²³ and R²⁴ is independently selected from the group the group consisting of H; C₁₋₁₈ alkyl, preferably C₂₋₃ alkyl, wherein C₂₋₃ alkyl taken together with N of R²² can form a saturated heterocycle, which heterocycle is optionally substituted with OH or aryl or an amino acid residue;

10 R²⁵ and R²⁶ are hydrogen.

9. The compound according to claim 7 or 8 wherein YR¹ is not hydrogen, an unsubstituted C₃₋₁₀ cycloalkyl, or a C₁₋₆ alkyl.

15

10. The compounds according to any one of claims 7 to 9, wherein YR¹ is not phenyl para substituted with OH.

11. The compounds according to any of claims 7 to 10 wherein YR¹ is fluorophenyl.

20

12. The compound according to any one of claims 7 to 10, wherein R¹ is a naphtenyl.

13. The compound according to any one of claims 7 to 12, wherein R³ is selected from an aryl unsubstituted or substituted with 1-3R⁶, wherein at least one R⁶ is a halogen or a C₁₋₆ alkyl

25

14. The compound according to claim 7, wherein either R² or R⁴ is O and either R²⁵ or R²⁶ is cyclopentyl or cyclohexyl.

30

15. The compound according to claim 7, selected from the group consisting of:

2-(2,6-Difluorophenyl)-5-[(2,6-difluorophenyl)methyl]-5H-imidazo[4,5-c]pyridine

5-Benzyl-2-(2,6-difluorophenyl)-5H-imidazo[4,5-c]pyridine

5-[(2,6-Difluorophenyl)methyl]-2-phenyl-5H-imidazo[4,5-c]pyridine

5-Benzyl-2-phenyl-5H-imidazo[4,5-c]pyridine

2-Phenyl-5-(3-phenylpropyl)-5H-imidazo[4,5-c]pyridine

5-[(2-Chlorophenyl)methyl]-2-phenyl-5H-imidazo[4,5-c]pyridine

5-[(3-Chlorophenyl)methyl]-2-phenyl-5H-imidazo[4,5-c]pyridine

35 5-[(4-Chlorophenyl)methyl]-2-phenyl-5H-imidazo[4,5-c]pyridine

13

5-[(2-Methoxyphenyl)methyl]-2-phenyl-5*H*-imidazo[4,5-c]pyridine
 5-[(3-Methoxyphenyl)methyl]-2-phenyl-5*H*-imidazo[4,5-c]pyridine
 5-[(4-Methoxyphenyl)methyl]-2-phenyl-5*H*-imidazo[4,5-c]pyridine
 5-[(4-Methylphenyl)methyl]-2-phenyl-5*H*-imidazo[4,5-c]pyridine
 5-[(2-Fluorophenyl)methyl]-2-phenyl-5*H*-imidazo[4,5-c]pyridine
 5-[(3-Fluorophenyl)methyl]-2-phenyl-5*H*-imidazo[4,5-c]pyridine
 5-[(4-Fluorophenyl)methyl]-2-phenyl-5*H*-imidazo[4,5-c]pyridine
 5-[(2-Methylphenyl)methyl]-2-phenyl-5*H*-imidazo[4,5-c]pyridine
 5-[(3-Methylphenyl)methyl]-2-phenyl-5*H*-imidazo[4,5-c]pyridine
 5-[(4-Bromophenyl)methyl]-2-phenyl-5*H*-imidazo[4,5-c]pyridine
 4-[(2-Phenyl-5*H*-imidazo[4,5-c]pyridin-5-yl)methyl]-benzonitrile
 2-Phenyl-5-[[4-(trifluoromethyl)phenyl]methyl]-5*H*-imidazo[4,5-c]pyridine
 5-[(4-Chlorophenyl)methyl]-2-phenyl-5*H*-imidazo[4,5-c]pyridine hydrochloride
 5-[(5-Chloro-2-thienyl)methyl]-2-phenyl-5*H*-imidazo[4,5-c]pyridine
 5-(2-Naphthalenylmethyl)-2-phenyl-5*H*-imidazo[4,5-c]pyridine
 2-Phenyl-5-(4-phenylbutyl)-5*H*-imidazo[4,5-c]pyridine
 5-[(1,1'-Biphenyl)-4-ylmethyl]-2-phenyl-5*H*-imidazo[4,5-c]pyridine
 2-Phenyl-5-(1-phenylethyl)-5*H*-imidazo[4,5-c]pyridine
 5-(1-Naphthalenylmethyl)-2-phenyl-5*H*-imidazo[4,5-c]pyridine
 2-(2,6-Difluorophenyl)-5-[(2,4-difluorophenyl)methyl]-5*H*-imidazo[4,5-c]pyridine
 5-[(4-Bromophenyl)methyl]-2-(2-fluorophenyl)-5*H*-imidazo[4,5-c]pyridine
 5-[(4-Bromophenyl)methyl]-2-(2-chlorophenyl)-5*H*-imidazo[4,5-c]pyridine
 5-[(4-Bromophenyl)methyl]-2-(3-chlorophenyl)-5*H*-imidazo[4,5-c]pyridine
 5-[(4-Bromophenyl)methyl]-2-(4-chlorophenyl)-5*H*-imidazo[4,5-c]pyridine
 5-[(4-Bromophenyl)methyl]-2-(2-pyridinyl)-5*H*-imidazo[4,5-c]pyridine
 5-[(4-Bromophenyl)methyl]-2-(2-thienyl)-5*H*-imidazo[4,5-c]pyridine
 5-[(4-Bromophenyl)methyl]-2-(1-naphthalenyl)-5*H*-imidazo[4,5-c]pyridine
 5-[(4-Bromophenyl)methyl]-2-(2-naphthalenyl)-5*H*-imidazo[4,5-c]pyridine
 5-[(4-Iodophenyl)methyl]-2-phenyl-5*H*-imidazo[4,5-c]pyridine
 5-[(4-Bromophenyl)methyl]-2-(3-fluorophenyl)-5*H*-imidazo[4,5-c]pyridine
 5-[(4-Bromophenyl)methyl]-2-(3-methylphenyl)-5*H*-imidazo[4,5-c]pyridine
 5-[(4-Bromophenyl)methyl]-2-(3-methoxyphenyl)-5*H*-imidazo[4,5-c]pyridine
 5-[(4-Bromophenyl)methyl]-2-(3-bromophenyl)-5*H*-imidazo[4,5-c]pyridine
 5-[(4-Chlorophenyl)methyl]-2-(3-bromophenyl)-5*H*-imidazo[4,5-c]pyridine
 5-[(4-Chlorophenyl)methyl]-2-(3-chlorophenyl)-5*H*-imidazo[4,5-c]pyridine;
 5-(2-Phenoxy-ethyl)-2-phenyl-5*H*-imidazo[4,5-c]pyridine
 5-(3-Phenyl-prop-2-en-1-yl)-2-phenyl-5*H*-imidazo[4,5-c]pyridine
 2-(3-Bromophenyl)-5-[(4-iodophenyl)methyl]-5*H*-imidazo[4,5-c]pyridine
 5-[(4-Bromophenyl)methyl]-2-[(phenylthio)methyl]-5*H*-imidazo[4,5-c]pyridine
 5-[(4-Bromophenyl)methyl]-2-[3-(trifluoromethyl)phenyl]-5*H*-imidazo[4,5-c]pyridine
 5-[(1,1'-Biphenyl)-4-ylmethyl]-2-(2-fluorophenyl)-5*H*-imidazo[4,5-c]pyridine
 5-[(4-Chlorophenyl)methyl]-2-(2-fluorophenyl)-5*H*-imidazo[4,5-c]pyridine
 2-(2-Fluorophenyl)-5-[(4-iodophenyl)methyl]-5*H*-imidazo[4,5-c]pyridine
 5-[(4-(1,1-Dimethylethyl)phenyl)methyl]-2-(2-fluorophenyl)-5*H*-imidazo[4,5-c]pyridine

16. A composition for separate, combined or sequential use in the treatment or prophylaxis of anti-viral infections, comprising:

- one or more compounds according to claim 7, and,

15

b) one or more compounds effective in the treatment or prophylaxis of viral infections, including Flaviviral or Picornaviral enzyme inhibitors, in proportions such as to provide a synergistic effect in the said treatment or prophylaxis.

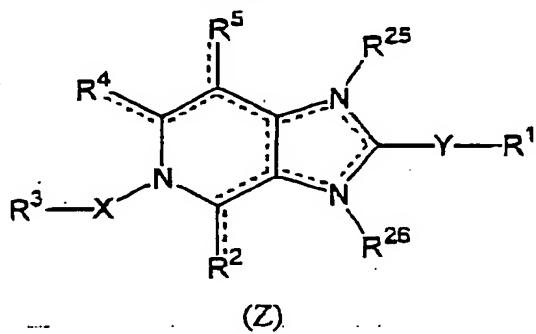
5 17. The composition according to claim 16, wherein said one or more compounds effective in the treatment or prophylaxis of viral infections are interferon alpha or ribavirin.

18. The use of the compounds of any one of claims 7 to 15 for the preparation of a medicament for the treatment of viral infections.

10 19. A method for preparing the compounds of claim 7 comprising essentially the steps of

- reacting a (substituted) 3,4-diaminopyridine (A) is reacted with B (Y-R1) to give imidazo[4,5-c]pyridines (C);
- introducing further substituents (R^2 , R^4 and/or $R^5 \neq H$) either a) by cyclization of an appropriately substituted 3,4-diaminopyridine (A) or b)) by introduction of the substituent(s) onto the imidazo[4,5-c]pyridine (C);
- reacting the imidazo[4,5-c]pyridines (C) with an alkylating agent (D) (R^3-X-R^6) in an appropriate solvent under addition of a base at ambient temperature; optionally, in the case of hydroxy, mercapto or amine substituents in position 4 or 6 of the imidazopyridine I ($Z = O, S$ or NR);
- introduction of a further substituent (R^{25} or R^{26}) at position 1 or 3 of the imidazo[4,5-c]pyridine.

20. A method for preventing or treating a viral infections in a subject or patient by administering to the patient in need thereof a therapeutically effective amount of one or more imidazo[4,5-c]pyridine derivatives according to formula (Z):



wherein:

15

- the dotted lines represent an optional double bond, provided that no two double bonds are adjacent to one another, and that the dotted lines represent at least 3, optionally 4 double bonds;
- R¹ is selected from hydrogen; aryl unsubstituted or substituted with one or more R⁶, heterocyclic ring unsubstituted or substituted with one or more R⁶, C₃₋₁₀ cycloalkyl unsubstituted or substituted with one or more R⁶ and C₄₋₁₀ cycloalkenyl unsubstituted or substituted with one or more R⁶;
- Y is selected from the group consisting of a single bond, O; S(O)_m; NR¹¹; and a divalent, saturated or unsaturated, substituted or unsubstituted C_{1-C₁₀} hydrocarbon group optionally including one or more heteroatoms in the main chain, said heteroatoms being selected from the groups consisting of O, S, and N; such as C₁₋₆ alkylene, C₂₋₆ alkenylene, C₂₋₆ alkynylene, -O(CH₂)₁₋₅-, -(CH₂)₁₋₄-O-(CH₂)₁₋₄-, -S-(CH₂)₁₋₅-, -(CH₂)₁₋₄-S-(CH₂)₁₋₄-, -NR¹¹-(CH₂)₁₋₅-, -(CH₂)₁₋₄-NR¹¹-(CH₂)₁₋₄ and C₃₋₁₀ cycloalkylidene;
- each R² and R⁴ is independently selected from the group consisting of hydrogen C₁₋₁₈ alkyl; C₂₋₁₈ alkenyl; C₂₋₁₈ alkynyl; C₁₋₁₈ alkoxy; C₁₋₁₈ alkylthio; halogen; OH; CN; NO₂; NR⁷R⁸; OCF₃; haloalkyl; C(=O)R⁹; C(=S)R⁹; SH; aryl; aryloxy; arylthio; arylalkyl; C₁₋₁₈ hydroxyalkyl; C₃₋₁₀ cycloalkyl; C₃₋₁₀ cycloalkyloxy; C₃₋₁₀ cycloalkylthio; C₃₋₁₀ cycloalkenyl; C₃₋₁₀ cycloalkynyl; 5 or 6 membered heterocyclic, oxyheterocyclic or thioheterocyclic ring; or, when one of R²⁵ or R²⁶ is different from hydrogen, either R² or R⁴ is selected from (=O), (=S), and (=NR²⁷);
- X is selected from the group consisting of a divalent, saturated or unsaturated, substituted or unsubstituted C_{1-C₁₀} hydrocarbon group optionally including one or more heteroatoms in the main chain (provided that the heteroatom is not linked to N of the nucleus), said heteroatoms being selected from the group consisting of O, S, and N; such as C₁₋₆ alkylene, (for example -CH₂-, -CH(CH₃)-, -CH₂-CH₂-, -CH₂-CH₂-CH₂-, -CH₂-CH₂-CH₂-CH₂), -(CH₂)₂₋₄-O-(CH₂)₂₋₄-, -(CH₂)₂₋₄-S-(CH₂)₂₋₄-, -(CH₂)₂₋₄-NR¹⁰-(CH₂)₂₋₄-, C₃₋₁₀ cycloalkylidene, C₂₋₆ alkenylene (such as -CH=CH-CH₂-), C₂₋₆ alkynylene;
- m is any integer from 0 to 2;
- R³ is selected from the group consisting of aryl; aryloxy; arylthio; aryl-NR¹⁰-, 5 or 6 membered heterocyclic, oxyheterocyclic or thioheterocyclic ring; and each of said aryl, aryloxy, arylthio, aryl-NR¹⁰-, 5 or 6 membered heterocyclic, oxyheterocyclic or thioheterocyclic ring is optionally substituted with one or more R¹⁷; C₃₋₁₀ cycloalkyl, oxycycloalkyl or thiocycloalkyl; C₄₋₁₀ cycloalkenyl with the proviso that the double bond

cannot be adjacent to a nitrogen; H with the proviso that if X is an alkylene, an alkenylene or an alkynylene, then X comprises at least 5 carbon atoms;

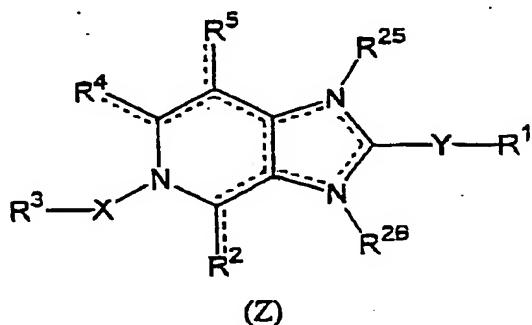
- R⁵ is independently selected from the group consisting of hydrogen; C₁₋₁₈ alkyl; C₂₋₁₈ alkenyl; C₂₋₁₈ alkynyl; C₁₋₁₈ alkoxy; C₁₋₁₈ alkylthio; halogen; OH; CN; NO₂; NR⁷R⁸; OCF₃; haloalkyl; C(=O)R⁹; C(=S)R⁹; SH; aryl; aryloxy; arylthio; arylalkyl; C₁₋₁₈ hydroxyalkyl; C₃₋₁₀ cycloalkyl; C₃₋₁₀ cycloalkyloxy; C₃₋₁₀ cycloalkylthio; C₃₋₁₀ cycloalkenyl; C₃₋₁₀ cycloalkynyl; 5 or 6 membered heterocyclic, oxyheterocyclic or thiheterocyclic ring;
- each R⁶ and R¹⁷ is independently selected from the group consisting of hydrogen; C₁₋₁₈ alkyl; C₂₋₁₈ alkenyl; C₂₋₁₈ alkynyl; C₁₋₁₈ alkoxy; C₁₋₁₈ alkylthio; C₃₋₁₀ cycloalkyl; C₃₋₁₀ cycloalkenyl or C₃₋₁₀ cycloalkynyl; halogen; OH; CN; NO₂; NR⁷R⁸; OCF₃; haloalkyl; C(=O)R¹⁸; C(=S)R¹⁸; SH; aryl; aryloxy; arylthio; arylalkyl; arylalkyloxy (optionally a oxybenzyl); arylalkylthio (optionally a benzylthio); 5 or 6 membered heterocyclic, oxyheterocyclic or thiheterocyclic ring; C₁₋₁₈ hydroxyalkyl; and each of said aryl, aryloxy, arylthio, arylalkyl, arylalkyloxy (optionally a oxybenzyl), arylalkylthio (optionally a benzylthio), 5 or 6 membered heterocyclic, oxyheterocyclic or thiheterocyclic ring, C₁₋₁₈ hydroxyalkyl is optionally substituted with 1 or more R¹⁹;
- each R⁷ and R⁸ is independently selected from the group consisting of H; C₁₋₁₈ alkyl; C₁₋₁₈ alkenyl; aryl; C₃₋₁₀ cycloalkyl; C₄₋₁₀ cycloalkenyl; 5-6 membered heterocyclic ring; C(=O)R¹²; C(=S)R¹²; an amino acid residue linked through a carboxyl group thereof; alternatively, R⁷ and R⁸, together with the nitrogen to which they are attached, combine to form a 5-6 membered heterocyclic ring;
- each R⁹ and R¹⁸ is independently selected from the group consisting of H; OH; C₁₋₁₈ alkyl; C₂₋₁₈ alkenyl; C₃₋₁₀ cycloalkyl; C₄₋₁₀ cycloalkenyl; C₁₋₁₈ alkoxy; NR¹⁵R¹⁶; aryl an amino acid residue linked through an amino group thereof;
- each R¹⁰ and R¹¹ is independently selected from the group the group consisting of H; C₁₋₁₈ alkyl; C₁₋₁₈ alkenyl; C₃₋₁₀ cycloalkyl; C₄₋₁₀ cycloalkenyl; aryl; C(=O)R¹²; 5-6 membered heterocyclic ring; an amino acid residue linked through a carboxyl group thereof;
- R¹² is independently selected from the group consisting of H; C₁₋₁₈ alkyl; C₂₋₁₈ alkenyl; aryl; C₃₋₁₀ cycloalkyl; C₄₋₁₀ cycloalkenyl; an amino acid residue linked through an amino group thereof;
- each R¹³ and R¹⁴ is independently selected from the group consisting of H; C₁₋₁₈ alkyl; C₂₋₁₈ alkenyl; aryl; C₃₋₁₀ cycloalkyl; C₄₋₁₀ cycloalkenyl; C(=O)R¹²; C(=S)R¹²; an amino acid residue linked through a carboxyl group thereof;

- each R¹⁵ and R¹⁶ is independently selected from the group consisting of H; C₁₋₁₈ alkyl; C₂₋₁₈ alkenyl; C₂₋₁₈ alkynyl; aryl; C₃₋₁₀ cycloalkyl; C₄₋₁₀ cycloalkenyl; an amino acid residue linked through a carboxyl group thereof;
- R¹⁹ is independently selected from the group consisting of H; C₁₋₁₈ alkyl, preferably C₁₋₆ alkyl; C₂₋₁₈ alkenyl; C₂₋₁₈ alkynyl; C₁₋₁₈ alkoxy, preferably C₁₋₆ alkoxy; C₁₋₁₈ alkylthio; C₃₋₁₀ cycloalkyl; C₄₋₁₀ cycloalkenyl; C₄₋₁₀ cycloalkynyl; halogen; OH; CN; NO₂; NR²⁰R²¹; OCF₃; haloalkyl; C(=O)R²²; C(=S)R²²; SH; C(=O)N(C₁₋₆ alkyl), N(H)S(O)(O)(C₁₋₆ alkyl); aryl; aryloxy; arylthio; arylalkyl; and each of said aryl, aryloxy, arylthio, arylalkyl substituted with 1 or more halogens, particularly a phenyl substituted with 1-2 halogens; hydroxyalkyl; 5 or 6 membered heterocyclic, oxyheterocyclic or thioheterocyclic ring each unsubstituted or substituted with 1 or more halogens;
- each R²⁰ and R²¹ is independently selected from the group consisting of H; C₁₋₁₈ alkyl, preferably C₁₋₆ alkyl; C₂₋₁₈ alkenyl; C₂₋₁₈ alkynyl; aryl; C₃₋₁₀ cycloalkyl; C₄₋₁₀ cycloalkenyl; C(=O)R¹², C(=S)R¹²;
- R²² is independently selected from H; OH; C₁₋₁₈ alkyl; C₂₋₁₈ alkenyl; C₁₋₁₈ alkoxy; NR²³R²⁴; aryl; C₃₋₁₀ cycloalkyl, ; C₄₋₁₀ cycloalkenyl;
- each R²³ and R²⁴ is independently selected from the group the group consisting of H; C₁₋₁₈ alkyl, preferably C₂₋₃ alkyl, wherein C₂₋₃ alkyl taken together with N of R²² can form a saturated heterocycle, which heterocycle is optionally substituted with OH or aryl or an amino acid residue;
- each R²⁵ or R²⁶ are absent or selected from the group consisting of of H, C₁₋₁₈ alkyl, preferably C₁₋₄ alkyl; C₃₋₁₀ cycloalkyl, such as C₅₋₁₀ bicycloalkyl; C₃₋₁₀ cycloalkenyl; (C₃₋₈ cycloalkyl)-C₁₋₃ alkyl;; aryl, such as phenyl; 5 or 6 membered heterocyclic ring, such as pyridyl; alkylaryl, such as benzyl; and each of said C₁₋₁₈ alkyl, preferably C₁₋₄ alkyl, C₃₋₁₀ cycloalkyl, C₃₋₁₀ cycloalkenyl, (C₃₋₈ cycloalkyl)-C₁₋₃ alkyl, C₅₋₁₀ bicycloalkyl, adamantyl, phenyl, pyridyl and benzyl is optionally substituted with 1-4 of each of C₁₋₆ alkyl, C₁₋₆ alkoxy, halo, CH₂OH, oxybenzyl, and OH; and heterocyclic ring having 3 to 7 carbon atoms, preferably a saturated heterocyclic ring wherein the heteroatoms are S, S(O), or S(O)₂ separated from the imidazopyridyl ring nitrogen atom by at least 2 heterocyclic ring carbon atoms. Provided that either R²⁵ or R²⁶ is hydrogen. Typically R²⁵ or R²⁶ is cyclopentyl or cyclohexyl; provided that if the compound is substituted at R²⁵ or R²⁶, either R² or R⁴ is selected from (=O), (=S), and (=NR²⁷); and
- R²⁷ is selected from the group consisting of H, C₁₋₁₈ alkyl, C₃₋₁₀ cycloalkyl, (C₃₋₁₀ cycloalkyl)-C₁₋₆ alkyl; aryl; arylalkyl, such as benzyl;

19

as an active ingredient, optionally in a mixture with at least a pharmaceutically acceptable carrier.

21. A method of screening antiviral compounds which comprises
 5 a) providing a compounds of the formula (Z)



wherein:

- the dotted lines represent an optional double bond, provided that no two double bonds are adjacent to one another, and that the dotted lines represent at least 3, optionally 4 double bonds;
- R¹ is selected from hydrogen; aryl unsubstituted or substituted with one or more R⁶, heterocyclic ring unsubstituted or substituted with one or more R⁶, C₃₋₁₀ cycloalkyl unsubstituted or substituted with one or more R⁶ and C₄₋₁₀ cycloalkenyl unsubstituted or substituted with one or more R⁶;
- Y is selected from the group consisting of a single bond, O; S(O)_m; NR¹¹; and a divalent, saturated or unsaturated, substituted or unsubstituted C_{1-C₁₀} hydrocarbon group optionally including one or more heteroatoms in the main chain, said heteroatoms being selected from the groups consisting of O, S, and N; such as C₁₋₆ alkylene, C₂₋₆ alkenylene, C₂₋₆ alkynylene, -O(CH₂)₁₋₅-, -(CH₂)₁₋₄-O-(CH₂)₁₋₄-, -S-(CH₂)₁₋₅-, -(CH₂)₁₋₄-S-(CH₂)₁₋₄-, -NR¹¹-(CH₂)₁₋₅-, -(CH₂)₁₋₄-NR¹¹-(CH₂)₁₋₄ and C₃₋₁₀ cycloalkylidene;
- each R² and R⁴ is independently selected from the group consisting of hydrogen C₁₋₁₈ alkyl; C₂₋₁₈ alkenyl; C₂₋₁₈ alkynyl; C₁₋₁₈ alkoxy; C₁₋₁₈ alkylthio; halogen; OH; CN; NO₂; NR⁷R⁸; OCF₃; haloalkyl; C(=O)R⁹; C(=S)R⁹; SH; aryl; aryloxy; arylthio; arylalkyl; C₁₋₁₈ hydroxyalkyl; C₃₋₁₀ cycloalkyl; C₃₋₁₀ cycloalkyloxy; C₃₋₁₀ cycloalkylthio; C₃₋₁₀ cycloalkenyl; C₃₋₁₀ cycloalkynyl; 5 or 6 membered heterocyclic, oxyheterocyclic or thioheterocyclic ring; or, when one of R²⁵ or R²⁶ is different from hydrogen, either R² or R⁴ is selected from (=O), (=S), and (=NR²⁷);

19

- X is selected from the group consisting of a divalent, saturated or unsaturated, substituted or unsubstituted C₁-C₁₀ hydrocarbon group optionally including one or more heteroatoms in the main chain (provided that the heteroatom is not linked to N of the nucleus), said heteroatoms being selected from the group consisting of O, S, and N; such as C₁₋₆ alkylene, (for example -CH₂-, -CH(CH₃)-, -CH₂-CH₂-, -CH₂-CH₂-CH₂-, -CH₂-CH₂-CH₂-CH₂), -(CH₂)₂₋₄-O-(CH₂)₂₋₄-, -(CH₂)₂₋₄-S-(CH₂)₂₋₄-, -(CH₂)₂₋₄-NR¹⁰-(CH₂)₂₋₄-, C₃₋₁₀ cycloalkylidene, C₂₋₆ alkenylene (such as -CH=CH-CH₂), C₂₋₆ alkynylene;
- m is any integer from 0 to 2;
- R³ is selected from the group consisting of aryl; aryloxy; arylthio; aryl-NR¹⁰-, 5 or 6 membered heterocyclic, oxyheterocyclic or thioheterocyclic ring;; and each of said aryl, aryloxy, arylthio, aryl-NR¹⁰-, 5 or 6 membered heterocyclic, oxyheterocyclic or thioheterocyclic ring is optionally substituted with one or more R¹⁷; C₃₋₁₀ cycloalkyl, oxycycloalkyl or thiocycloalkyl; C₄₋₁₀ cycloalkenyl with the proviso that the double bond cannot be adjacent to a nitrogen; H with the proviso that if X is an alkylene, an alkenylene or an alkynylene, then X comprises at least 5 carbon atoms;
- R⁵ is independently selected from the group consisting of hydrogen; C₁₋₁₈ alkyl; C₂₋₁₈ alkenyl; C₂₋₁₈ alkynyl; C₁₋₁₈ alkoxy; C₁₋₁₈ alkylthio; halogen; OH; CN; NO₂; NR⁷R⁸; OCF₃; haloalkyl; C(=O)R⁹; C(=S)R⁹; SH; aryl; aryloxy; arylthio; arylalkyl; C₁₋₁₈ hydroxyalkyl; C₃₋₁₀ cycloalkyl; C₃₋₁₀ cycloalkyloxy; C₃₋₁₀ cycloalkylthio C₃₋₁₀ cycloalkenyl; C₃₋₁₀ cycloalkynyl; 5 or 6 membered heterocyclic, oxyheterocyclic or thioheterocyclic ring;
- each R⁶ and R¹⁷ is independently selected from the group consisting of hydrogen; C₁₋₁₈ alkyl; C₂₋₁₈ alkenyl; C₂₋₁₈ alkynyl; C₁₋₁₈ alkoxy; C₁₋₁₈ alkylthio; C₃₋₁₀ cycloalkyl, C₃₋₁₀ cycloalkenyl or C₃₋₁₀ cycloalkynyl; halogen; OH; CN; NO₂; NR⁷R⁸; OCF₃; haloalkyl; C(=O)R¹⁸; C(=S)R¹⁸; SH; aryl; aryloxy; arylthio; arylalkyl; arylalkyloxy (optionally a oxybenzyl); arylalkylthio (optionally a benzylthio); 5 or 6 membered heterocyclic, oxyheterocyclic or thioheterocyclic ring; C₁₋₁₈ hydroxyalkyl; and each of said aryl, aryloxy, arylthio, arylalkyl, arylalkyloxy (optionally a oxybenzyl), arylalkylthio (optionally a benzylthio), 5 or 6 membered heterocyclic, oxyheterocyclic or thioheterocyclic ring, C₁₋₁₈ hydroxyalkyl is optionally substituted with 1 or more R¹⁹;
- each R⁷ and R⁸ is independently selected from the group consisting of H; C₁₋₁₈ alkyl; C₁₋₁₈ alkenyl; aryl; C₃₋₁₀ cycloalkyl; C₄₋₁₀ cycloalkenyl; 5-6 membered heterocyclic ring; C(=O)R¹²; C(=S)R¹²; an amino acid residue linked through a carboxyl group thereof;

alternatively, R⁷ and R⁸, together with the nitrogen to which they are attached, combine to form a 5-6 membered heterocyclic ring;

- each R⁹ and R¹⁸ is independently selected from the group consisting of H; OH; C₁₋₁₈ alkyl; C₂₋₁₈ alkenyl; C₃₋₁₀ cycloalkyl; C₄₋₁₀ cycloalkenyl; C₁₋₁₈ alkoxy; NR¹⁵R¹⁶; aryl an amino acid residue linked through an amino group thereof;
- each R¹⁰ and R¹¹ is independently selected from the group the group consisting of H; C₁₋₁₈ alkyl; C₁₋₁₈ alkenyl; C₃₋₁₀ cycloalkyl; C₄₋₁₀ cycloalkenyl; aryl; C(=O)R¹²; 5-6 membered heterocyclin ring; an amino acid residue linked through a carboxyl group thereof;
- R¹² is independently selected from the group consisting of H; C₁₋₁₈ alkyl; C₂₋₁₈ alkenyl; aryl; C₃₋₁₀ cycloalkyl; C₄₋₁₀ cycloalkenyl; an amino acid residue linked through an amino group thereof;
- each R¹³ and R¹⁴ is independently selected from the group consisting of H; C₁₋₁₈ alkyl; C₂₋₁₈ alkenyl; aryl; C₃₋₁₀ cycloalkyl; C₄₋₁₀ cycloalkenyl; C(=O)R¹²; C(=S)R¹²; an amino acid residue linked through a carboxyl group thereof;
- each R¹⁵ and R¹⁶ is independently selected from the group consisting of H; C₁₋₁₈ alkyl; C₂₋₁₈ alkenyl; C₂₋₁₈ alkynyl; aryl; C₃₋₁₀ cycloalkyl; C₄₋₁₀ cycloalkenyl; an amino acid residue linked through a carboxyl group thereof;
- R¹⁹ is independently selected from the group consisting of H; C₁₋₁₈ alkyl, preferably C₁₋₆ alkyl; C₂₋₁₈ alkenyl; C₂₋₁₈ alkynyl; C₁₋₁₈ alkoxy, preferably C₁₋₆ alkoxy; C₁₋₁₈ alkylthio; C₃₋₁₀ cycloalkyl; C₄₋₁₀ cycloalkenyl; C₄₋₁₀ cycloalkynyl; halogen; OH; CN; NO₂; NR²⁰R²¹; OCF₃; haloalkyl; C(=O)R²²; C(=S)R²²; SH; C(=O)N(C₁₋₆ alkyl), N(H)S(O)(O)(C₁₋₆ alkyl); aryl; aryloxy; arylthio; arylalkyl; and each of said aryl, aryloxy, arylthio, arylalkyl substituted with 1 or more halogens, particularly a phenyl substituted with 1-2 halogens; hydroxyalkyl; 5 or 6 membered heterocyclic, oxyheterocyclic or thioheterocyclic ring each unsubstituted or substituted with 1 or more halogens;
- each R²⁰ and R²¹ is independently selected from the group consisting of H; C₁₋₁₈ alkyl, preferably C₁₋₆ alkyl; C₂₋₁₈ alkenyl; C₂₋₁₈ alkynyl; aryl; C₃₋₁₀ cycloalkyl; C₄₋₁₀ cycloalkenyl; C(=O)R¹², C(=S)R¹²;
- R²² is independently selected from H; OH; C₁₋₁₈ alkyl; C₂₋₁₈ alkenyl; C₁₋₁₈ alkoxy; NR²³R²⁴; aryl; C₃₋₁₀ cycloalkyl, ; C₄₋₁₀ cycloalkenyl;
- Each R²³ and R²⁴ is independently selected from the group the group consisting of H; C₁₋₁₈ alkyl, preferably C₂₋₃ alkyl, wherein C₂₋₃ alkyl taken together with N of R²² can form a saturated heterocycle, which heterocycle is optionally substituted with OH or aryl or an amino acid residue;

22

- each R²⁵ or R²⁶ are absent or selected from the group consisting of H, C₁₋₁₈ alkyl, preferably C₁₋₄ alkyl; C₃₋₁₀ cycloalkyl, such as C₅₋₁₀ bicycloalkyl; C₃₋₁₀ cycloalkenyl; (C₃₋₈ cycloalkyl)-C₁₋₃ alkyl;; aryl, such as phenyl; 5 or 6 membered heterocyclic ring, such as pyridyl; alkylaryl, such as benzyl; and each of said C₁₋₁₈ alkyl, preferably C₁₋₄ alkyl, C₃₋₁₀ cycloalkyl, C₃₋₁₀ cycloalkenyl; (C₃₋₈ cycloalkyl)-C₁₋₃ alkyl, C₅₋₁₀ bicycloalkyl, adamantlyl, phenyl, pyridyl and benzyl is optionally substituted with 1-4 of each of C₁₋₆ alkyl, C₁₋₆ alkoxy, halo, CH₂OH, oxybenzyl, and OH; and heterocyclic ring having 3 to 7 carbon atoms, preferably a saturated heterocyclic ring wherein the heteroatoms are S, S(O), or S(O)₂ separated from the imidazopyridyl ring nitrogen atom by at least 2 heterocyclic ring carbon atoms. Provided that either R²⁵ or R²⁶ is hydrogen. Typically R²⁵ or R²⁶ is cyclopentyl or cyclohexyl; provided that if the compound is substituted at R²⁵ or R²⁶, either R² or R⁴ is selected from (=O), (=S), and (=NR²⁷); and
- R²⁷ is selected from the group consisting of H, C₁₋₁₈ alkyl, C₃₋₁₀ cycloalkyl, (C₃₋₁₀ cycloalkyl)-C₁₋₆ alkyl; aryl; arylalkyl, such as benzyl;

15 and

b) determining the anti-viral activity of said compound.

22. The method of claim 21, wherein said anti-viral activity is determined by the activity of said compound against one or more viruses belonging to the family of the Flaviviridae and/or 20 of the Picomaviridae.

22

**This Page is Inserted by IFW Indexing and Scanning
Operations and is not part of the Official Record**

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

- BLACK BORDERS**
- IMAGE CUT OFF AT TOP, BOTTOM OR SIDES**
- FADED TEXT OR DRAWING**
- BLURRED OR ILLEGIBLE TEXT OR DRAWING**
- SKEWED/SLANTED IMAGES**
- COLOR OR BLACK AND WHITE PHOTOGRAPHS**
- GRAY SCALE DOCUMENTS**
- LINES OR MARKS ON ORIGINAL DOCUMENT**
- REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY**
- OTHER:** _____

IMAGES ARE BEST AVAILABLE COPY.

As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.